

**DYNAMIC, AUTOMATED DOUBLE-ENDED SYSTEM AND METHOD FOR  
TESTING AND QUALIFYING METALLIC TELECOMMUNICATION LOOPS**

ABSTRACT

5           A multi-unit test system performs automated and  
dynamically alterable, double-ended testing of  
telephone lines, whose service is provided on copper  
cable pairs. A prescribed set of (e.g., twelve)  
individual tests are executed either from a hand-held  
10 measurement unit, or by a central office-resident  
direct access test unit, or by a collaboration of the  
two. The hand-held measurement unit and the direct  
access test unit exchange FSK-based test control  
messages with one another that are effective to cause a  
15 selected electrical condition to be applied to a first  
portion of the wireline and to cause a prescribed  
electrical measurement to be made at a second portion  
of the wireline.